said component, and (iii) controls said transfer;

- transferring said volume element to the other environment at said time and under control of said signal.

34. The method of claim 33, whereby said volume element is transfered by means of a pore or capillary, which connects said sample volume to said other environment through appertures in a membrane wall between said environment and said other environment, which smallest aperture is defined by size D according to formula $100\,\mu \geq D \geq 0.1\,\mu$.

35. The method of claim 33 wherein said locating, generating, and transferring steps are repeated in series, whereby separately withdrawn volume elements are gathered in said other environment.

36. The method of claim 33 wherein said transferring step is effected by

- an electrical voltage or field strength impulse,
- a mechanically induced pressure difference impulse,
- a light-pressure impulse, or
- combinations thereof.

37. The method of claim 34 wherein the pore or capillary has a lumen larger than the aperture in said wall in direct contact with said sample volume.

38. The method according to claim 36 wherein said withdrawal is performed by the electrical field strength impulse, by briefly applying an electrical field at least once for electrophoresis of electrically charged components and/or for electroosmosis with coupled transport of electrically neutral molecules wherein

one electrode is in electrically contacts a solution in said sample volume, while another electrode electrically contacts a solution in the other environment, and the volume sample is connected to the other environment conducting contact between the two through said pore.

39. The method according to claim 36 wherein withdrawal is performed by the mechanically induced pressure difference impulse by applying at least one short impulse to increase pressure in the sample volume as compared to pressure inside the other environment receptor compartment, and/or by a short impulse to reduce the pressure inside the other environment.

40. The method according to claim ~~38~~ 39, whereby the impulse to reduce pressure which is caused by a piezo-controlled dispenser module, which filling volume is inside the other environment, and the impulse to increase pressure, or the impulse to reduce pressure, is caused by change of piston position of a coupled piston pump device.

41. The method according to claim ~~38~~ 40, whereby the piston pump device is controlled by a stepping motor, and the pressure increase amount is controlled by the number of the droplets dispensed by steps of the stepping motor.

42. The method according to claim 33 wherein said signal triggers a withdrawal time based on a probability factor for when the component is present within the volume elements.

43. The method according to claims ~~2~~ 34 wherein time and space correlation based on analysis of a subvolume of said sample volume within said volume element and

the withdrawal of said volume element is effected by computer-and-software means, wherein the component which has been analyzed in said volume element will be present in the volume element withdrawn during the withdrawal process wherein the pore in the membrane wall is caused to approach the volume element, and/or the volume element is caused to approach the pore in the wall with a predetermined time correlation by transport in the flow or by electrostatic or magnetic field gradients.

44. The method according to claim 43, wherein said subvolume is smaller than the volume element.

45. The method according to claim 33, wherein said signal is detected by an optical analytical system which analyzes specific molecular properties in said volume element, and which time-controls a selective withdrawal process on-line under control of computer software.

46. The method according to claim 33, wherein said environment and said other environment are connected as a withdrawal unit, and whereby said locating, generating, and transferring steps are coupled and repeated in a sequence arranged in a cascade, whereby consecutive sequences employ different withdrawal units.

47. The method according to claim 33 whereby said component can form a spectroscopically detectable complex with at least one reagent.

48. The method according to claim 33, wherein said component is a which have been unknown with respect to their molecular nature, such molecule, cell,

vesicle, or molecular complex, which molecular nature of said component can be identified by interacting with known structures, or by determining activities of said components.

49. The method according to claim ~~38~~ 48, wherein the component comprises pathogens or immunogens obtained by collecting serums from at least one organism wherein at least one of said serums, serum 1, is obtained during an acute phase of infection by a pathogen or immunogen, known or unknown, and at least one of said serums, serum 2, is obtained from the at least one organism, or at least one other organism infected by said pathogen or immunogen, or homologous pathogen or immunogen, during a chronic phase of infection, wherein said pathogen or immunogen from serum 1 is induced to measurably form a complex with fluorescence-dye labeled antibodies from said serum 2.

50. The method according to claim ~~39~~ 48, wherein simultaneous binding of antibodies giving different fluorescence signals, is determined by cross-correlation.

51. The method according to claim 39, whereby labeling said antibodies is done by at least one reaction with dyes capable of coupling, or by reaction with dye-labeled antibody binding domains.

52. The method according to claim 33 wherein said component is a known microorganism or vesicle, which can be detected by specific interactions with surface-expressed or cytosolic-expressed structural elements of natural or recombinant proteins or peptides, or can be detected by enzymatic activities, using fluorescence-labeled target molecules.

53. The method according to claim 33 wherein said volume element is composed of measuring subvolumes illuminated in parallel by simultaneous illumination of plural volume elements effected by at least one electromagnetic radiation source using at least one holographic grid.

54. The method according to claim 53, wherein said illumination effects fluorescence signals from at least one volume element, which signals are registered by confocal focusing using a confocal pinhole apertures in an object plane, or by coupling the signals into optical waveguides in the object plane, or by multiarray detectors in the object plane.

55. The method according to claim 55, wherein at least two volume elements in common, or assembled in groups, are focused confocally onto at least one detector element of a photon-registrating measuring element in the object plane during the signal registration, and whereby parallelized measurements are performed on said at least two volume elements.

56. The method according to claim 33, wherein, in order to detect very low concentrations of fluorescing molecules, the sample volume is subjected to a scanning process prior to the locating step, whereby time required for locating said component is shortened by varying the definition of the volume element with respect to the sample volume, continuously or discontinuously in time.

57. The method according to claim 33, wherein time interval δt for measurement of one or more defined volume elements by is shorter than an average dwelling time of said component within a volume element.

58. A device for performing the method according to claim 34 comprising

- said environment and other environment connected by
- receptor means including said capillary or pore in said membrane wall;
- locating means, for locating a position within said environment;
- signal generating means cooperating with said locating means
- receptor means, including said pore or capillary, connecting said environment with said other environment;
- withdrawal means connected to said receptor means, for moving said pore or capillary with respect to said environment, which withdrawal means is controlled mechanically, electrically, or optically.

59. The device according to claim 58, comprising of an arrangement of a closed or open container for receiving a sample volume, coupled with a measuring device for the illumination and/or measurement of a small volume element (measuring volume) by electromagnetic radiation, and at least one connection to at least one second volume element which is in direct contact with the sample volume through an aperture and a liquid phase wherein said aperture is preferably immediately adjacent to said measuring volume.

60. The method according to claim 33 wherein the component comprises unidentified pathogens, immunogens, or organisms which functionally express parts of a genome.

61. The method according to claim 33 wherein the component comprises genetic probes for functional elements of a whole genome.